



# Barcelona

## Fire Service



Activity Report  
2011





# Summary



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## Working for Protection

### Municipal civil protection

The Civil Protection Unit forms part of the Civil Protection and Prevention Division of the Fire Prevention, Extinction and Rescue Service (SPEIS). Its unit-specific tasks include preparing, updating, reviewing and implementing municipal emergency plans for risks in the city.

The Unit also advises on and supervises the design of safety and security measures for crowd-pulling events that are held on public roads and in enclosed spaces, with regard both to the operation of the organisers' self-protection plan and coordinating responses to possible emergencies.

It also takes part in various municipal and regional working groups, establishing safety measures for city infrastructures and checking the compatibility of chemical and technological risks with urban planning.

It is also responsible for providing advice, reviews, information and training associated with the emergency self-protection plans of activities and centres set out under Spanish Decree 82/2010, of 29 June.

### Municipal emergency plans

The work that has been carried out includes:

1. Coordinating the preparation and updating of the Municipal Civil Protection Plan, the municipal action plans, the specific municipal plans and, generally, any other instrument for civil-protection planning within the municipal sphere, with support from the municipal services involved.



The plans currently in operation are as follows:

- Municipal Civil Protection Plan (basic civil-protection plan) for dealing with emergency situations for which no special plan is available. The plan contains protocols for heat waves, for rough seas (tall waves) and for strong winds.
- Municipal emergency action plans (PAEM) are those that have an equivalent plan under the same name with the Generalitat [regional government] of Catalonia and are as follows:
  - Municipal Emergency Action Plan (PAEM) for forest fires (includes emergency self-protection plans for forest fires within Barcelona's neighbourhoods: Cim del Tibidabo, Mas Sauró, Mas Guimbau, Font del Mont, El Rectoret, Vallvidrera, Peu del Funicular and Can Caralleu, in the Sarrià - Sant Gervasi district, Vall Parc, in the Gràcia / Horta-Guinardó district and Torre Baró, in the Nou Barris district)
  - Municipal Emergency Action Plan (PAEM) for risks of insufficient drainage (flooding)
  - Municipal Emergency Action Plan (PAEM) for snow and ice
  - Municipal Emergency Action Plan (PAEM) for serious accidents in companies with chemical hazards
  - Municipal Emergency Action Plan (PAEM) for seismic hazards
  - Municipal Emergency Action Plan (PAEM) for the transport of dangerous goods
  - Municipal Emergency Action Plan (PAEM) for the accidental contamination of marine waters
- Specific municipal emergency plans (PEEM):
  - Specific Municipal Energy Plan (PEEM) for outside Barcelona Port
  - Specific Municipal Energy Plan (PEEM) for gas-service accidents or failures
  - Specific Municipal Energy Plan (PEEM) for electricity-supply failures
  - Specific Municipal Energy Plan (PEEM) for communications failures (voice and data)
  - Specific Municipal Energy Plan (PEEM) for health hazards
  - Specific Municipal Energy Plan (PEEM) for serious accidents in road tunnels
  - Specific Municipal Energy Plan (PEEM) for emergencies in rail-passenger transport
- Action plans:
  - Action Plan for the Social Logistics Group

Action taken during 2011 included:

Basic Municipal Civil Protection Plan (winds).  
Activated to pre-alert on 16/12/11.

Basic Municipal Civil Protection Plan (waves). Activated to pre-alert on 28/10/11 and on 3, 6, 8, 15, 16 and 17/11/11.

Municipal Emergency Action Plan (PAEM) for chemicals. Activated to alert on 26/9/11.

Activated to emergency on 11/10/11 (a propane gas leak from a lorry at the exit of the Koalagas plant).

Municipal Emergency Action Plan (PAEM) for snow and ice. Activated on 22, 23, 24 and 25/1/11, owing to low temperatures (operation cold).

Municipal Emergency Action Plan (PAEM) for forest fires. This was activated on pre-alert 29 times owing to weather conditions, seven of which were for critical alert.

Municipal Emergency Action Plan (PAEM) for flooding. This was activated to alert: on 15/3/11, on 28/4/11, on 3/5/11, on 19/7/11, on 30/7/11 and on 2/11/11. To emergency: on 15/3/11 and on 19/7/11.

Municipal Emergency Action Plan (PAEM) for accidental contamination of marine waters. Though the plan was not formally activated, the red flag was raised seven times in response to waste water being dumped.

2. Studying and proposing preventive measures or plans aimed at reducing natural, technological and man-made hazards, as well as their harmful consequences, such as the start to implementing Spanish Royal Decree 563/2010, of 7 May, approving the regulation of pyrotechnic items and ammunition.

3. Advising organisers of crowd-pulling events on the minimal essential conditions that their events must present in preparation for large crowds of people in Barcelona, to ensure people's safety. Reviewing and providing information on documents presented by organisers, where their events are subject to the fourth additional provision of the Byelaw on Activities on Public Roads, and presenting a report (with binding effect) that gives accurate information on the measures that need to be adopted before these events can be put on. There are both regular events, such as the annual Three Kings Parade, Carnival, the St Eulalia Festivities, the Seville Fair, the Grec Festival, Montjuïc Night, the Mercè Festival, and extraordinary ones or ones without a regular set of dates, such as: the World

Race, Primavera Sound, Sònar, the 26th World Youth Day, as well as others that are held in authorised venues but only through specific applications, such as concerts at the Palau Sant Jordi, events at the Forum of Cultures Auditorium and at the Montjuïc Olympic Stadium.

4. Running a municipal coordination centre specially set up for the occasion, for example: the CECOR coordination centre for the Three Kings Parade, Carnival and the La Mercè Festivities.

5. Analysing and localising hazards in the city that may affect residents and properties, in collaboration with those in charge of operational prevention, by inspecting roads and prevention systems in the Collserola mountain range, inspecting beaches hosting city events such as the air festival on 2 October, visiting and inspecting metro lines and road tunnels, etc., and studying and proposing organisational measures to ensure action efficiency.

6. Planning and promoting the carrying out of drills and exercises that ensure the corresponding introduction, updating and knowledge of municipal emergency plans (drills on the L9 metro line, for example).

7. Boosting civil protection in every local authority sphere, both technically and technologically (participation in the Barcelona Technical Urban Service Infrastructures Round Table (TISU) on urban tunnels, etc.), interrelations with the Hermes platform (implementation programme for emergency and self-protection plans).

8. Boosting information exchanges on serious hazards, public calamities and disasters at every level of civil defence, national and international, such as taking part in the European Civil Protection Mechanism basic training course, where we gave talks at Montjuïc Castle on 6 and 7 October, or working in an information exchange with the Fire Service of the Generalitat (regional government) of Catalonia, on chemical hazards, road and rail transport and receiving training at the (Spanish) National Civil Protection School from 28 February to 2 March



on the "Analysis and Management of Hazards in Large Concentrations of People" course.

9. Continuing the Generalitat Commission for Civil Protection standardisation process involving various emergency plans given final approval at the Full City Council Meeting of 25 March 2011.

Revising the Municipal Civil Protection Plan. An action plan for rough sea conditions.

Revising the Specific Municipal Emergency Plan for rail passenger transport.

Revising the Municipal Emergency Action Plan for seismic hazards.

10. Giving technical assistance to businesses, centres and bodies that are required to have an emergency self-protection plan: telephone information to districts, private entities such as schools, municipal businesses such as B:SM, (both online and through personal visits).

11. Boosting the participation of all city residents in reducing the hazards society creates and in preventive work, by promoting the development of emergency self-protection culture programmes among the population and through the activities that are carried out, such as the distribution of the "Protect Yourself from Forest Fires" booklet to local residents in Collserola, and training provided at the Milà i Fontanals Institute on "Enjoying the Festivities in Safety", on 7 June 2011, which dealt with fire and bonfire-related hazards.

Leaflets were also handed out on preventive campaigns dealing with the hazards of snow, flooding, fireworks and bonfires.

12. Coordinating the action of District Prevention Secretariats in relation to civil protection: meetings on fireworks before Sant Joan (Midsummer Eve) festivities, summer bonfires, updating PAU, etc.

13. Issuing reports on the risk level acceptability conditions for various activities established under Spanish Act 3/1998, of 27 February, the comprehensive intervention of the environmental administration (IIAA) and other activities that may affect the safety and security of the city, for example, the Sants-Sagrera AVE (high-speed rail) tunnel.





## Working for prevention

In 2011 the work carried out by the Civil Protection and Prevention Division, in areas covered by the Service Charter of the Barcelona Fire Service under the generic description of "prevention", followed two main lines of action.

First, the application of the regulatory framework for fire safety in buildings, installations, infrastructures and urban planning (rules and regulations) and, second, concerned preventive action per se, aimed at citizens as users of these buildings, installations and infrastructures (prevention).

The annual assessment of activities is accordingly presented with a brief description of each of the two lines pursued and includes the main indicators in each of these areas.

The generic area known as "prevention" and the exercise of municipal powers in civil protection matters constitute the reason for the existence of the Barcelona Fire Service Civil Protection and Prevention Division.

### Regulation

This refers to the application of the regulations which, whether exclusively or within the framework of rules of another technical nature, set down the terms and conditions of fire safety in buildings, installations, infrastructures and urban planning.

Applying the regulations involves giving technical advice, assessing architectural and engineering projects with the aim of applying a comprehensive, suitable and adequate fire safety model and, ultimately, carrying out inspections.

It should also be noted that, in 2011, five new fact sheets, designed as tools to facilitate the application of fire safety regulations in Barcelona, were drawn up and published on the fire service website, in the section on fire safety regulation fact sheets.

These new fact sheets are as follows:

- 1.08 Licence record management, with an appended annexe that includes a diagram of the Division's two main administrative processes.
- 1.09 Site permit applications and minimum safety conditions for bonfires.
- 1.10 Renovation work.
- 4.01 Roll-up irrigated and non-irrigated textile fire barriers (curtains).
- 4.02 Installing outside hydrants under CTE DB SI 4, table 1.1, note 3.
- In addition, one of the fact sheets, 6.02, on cast-iron column and lattice trusses, was updated.

### Prevention

This concept needs to be seen in terms of dealing with people as the root or cause of accidents and emergencies, as well as possible victims suffering their effects.

That means, as stated at the start of this section, preventive action per se regards citizens as users of buildings, installations and infrastructures that present fire hazards irrespective of their level.

In practice that involves designing and giving out advice on safe practices in hazardous environments (such as the home, work, etc.) guidelines on self-protection and giving out safety advice to certain groups (such as schools, the elderly, communities of neighbours and residents' associations, etc.).

Prevention in schools has followed an established pattern in recent years. In addition to talks with students there have also been sessions aimed at teaching staff, to give continuity to the preventive work. Teachers are in permanent contact with students and the idea is to involve them more,



among other things, in fire drills where, in many cases, the Civil Protection and Prevention Division has offered advice and technical assistance.

As regards elderly people, given they have many particular characteristics, the talks aimed at them were oriented towards their specific needs.

Finally, work was carried out with communities of neighbours who requested it. These requests usually arise from fire and emergency situations they or neighbouring buildings have experienced.

Preventive action with communities of neighbours focussed on three aspects:

- Prevention: preventing fires from starting.
- Self-protection: the measures to be taken once a fire has started.
- Immediate alert: we stressed the importance of calling our 080 emergency phone number in the event of help being needed.



## Activities

### Environment knowledge and monitoring services: operational prevention

Under the generic name of "operational prevention", we measure every action that gives us a better knowledge of our intervention environment, including roads and access points, as well as buildings and special elements. We also include environment monitoring services and activities as a preventive measure. In both cases, these lead to an increase in efficiency and in our own safety.

**1,750**  
knowledge  
services  
(2011)

We performed 1,750 environment knowledge and monitoring services in 2011, which represents 12.04% of all services (5.14% more than in 2010). In absolute terms, we performed 687 more environment knowledge and monitoring services in 2011 than in the previous year (2010).

Of these services and monitoring activities, 87.89% were performed during the day and 12.11% at night.



## Rescues

In 2011, 3,588 rescues were performed, which represents 24.69% of all actions. Of these, 3 were outside the municipal boundaries. During 2010, 4,065 rescues were performed, which represents 26.37% of all actions.

The reduction in the number of rescue operations is directly related to the reduction in activity caused by the crisis and the direct effects of the new Traffic Act now in force, which has led to a reduction in traffic accidents. Out of the total number of rescue operations, 213 were not emergencies.

In 2,281 cases, the interventions involved coming to the assistance or aid of people, which represents 63.57% of the total. In 1,094 cases they involved rescues from lifts (30.49%). The rest correspond to the recovery of 25 bodies and the rescue or capture of 188 live animals. Medical assistance was given in 1,620 cases and our medical teams carried out 805 hospital transfers.

During the week, Tuesdays were the days with the least activity (12.46%) and Saturdays those with the most activity, accounting for 17.25% of rescues.

Rescue operations scored over 6 points for compliance with the Service Charter (arrival time less than 10 minutes in 90% of urgent cases) reaching 96.96% of cases (up from 96.16% in 2010). In 74.28% of emergency rescue operations within Barcelona's municipal boundaries, the arrival time was less than 5 minutes (up from 71.12% in 2010).

## Extinguishing fires and explosions

We intervened in 3,119 fires and explosions (21.46% of all services, down 1.66% from 2010): 445 fewer than in the previous year.

The number of fires fell compared to previous years, owing to the effective application of fire safety regulations and a drop in activity. Four interventions were outside the municipal boundaries.

Of the 3,119 responses, 1,663 were on public roads, down from the 1,807 reported in the previous year (2010). We extinguished 1,277 fires in buildings, 936 of which started in housing blocks, representing 30.01% of firefighting operations (a slightly lower percentage than the 32.30% reported in 2010).

We intervened in 39 forest fires, compared to 58 in 2010, a fall of 32.76%. Such operations represented 1.25% of firefighting services, which was down on 2010 (1.63%).

An analysis of the firefighting services with regard to the days of the week gives us the following data:

Mondays were the days with the least activity (12.22%) while Fridays and Saturdays saw the most (16.35% and 15.84% respectively).

Fire service distribution:

42.19% of fire services were performed during the day. 57.81% of fire services were performed during the night, from 8 pm to 8 am.

97.53% of fire services had an arrival time of under 10 minutes, compared to 97.67% in 2010. The Service Charter is committed arriving in under 10 minutes in 90% of cases. In 80.22% of cases our arrival time was under 5 minutes (compared to 77.41% in 2010).

During 2011, the average arrival time for emergencies (fires / explosions and emergency rescues) was 3 minutes and 52 seconds, compared to 3 minutes and 50 seconds in 2010.

**3,588**  
rescue  
operations  
(2011)

## Technical assistance

Firefighters perform a large number of very varied services for the public of a "non-urgent" character which are classed as technical assistance.

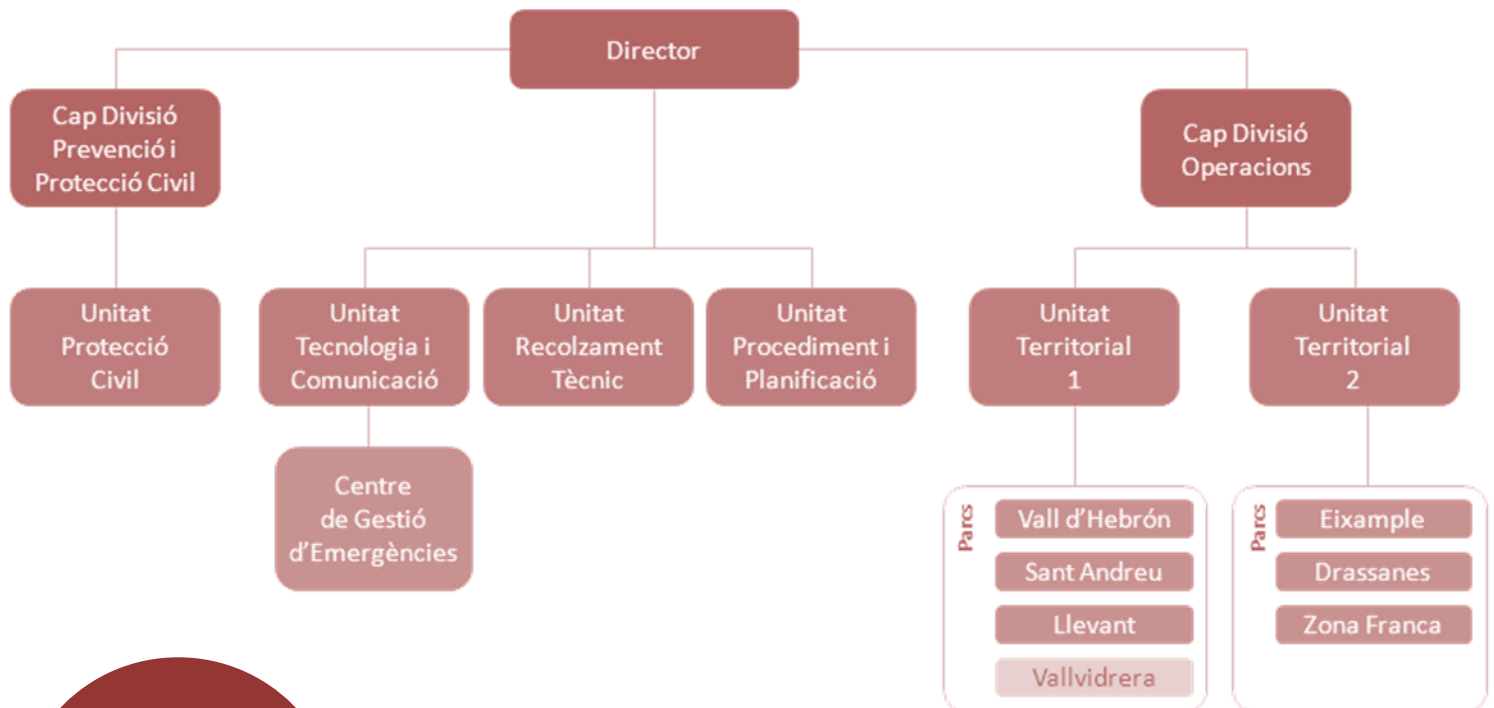
In 2011, 3,554 operational technical assistance services were performed (fewer than the 3,947 performed in 2010) which represents 24.45% of all interventions.

In 62.94% of cases the technical assistance was provided during the day and in 37.06% during the night.



# People

Organisation chart:



**20**  
women  
(2.8%)

adopted.

Women were only recently incorporated into the Barcelona Fire Service (in 2007) which explains why there is such a low percentage of women, although positive discrimination measures towards women have been

**704**  
people  
(-2.49%  
2010-11)

The average age of the operational staff was 45.12 years, at the end of 2011, slightly younger than in 2010, when it was 45.42 years. Enabling operational staff to retire at the age of 60, while maintaining the total number of firefighters by public recruitment, is helping to reduce the average age and, therefore, gradually leading to a younger workforce overall (by 0.6%)

## Industrial relations, risk prevention and health

The most important steps for implementing and following up the agreement on the joint working conditions of Barcelona City Council's public employees were taken by the Health and Safety Committee and its respective commissions, which dealt, among other things, with such issues as rainproof clothing, helmet lights, new fire engines, self-contained breathing apparatuses, the presentation of the Procedures Unit, the review of SPEIS procedures and accident investigations.

Another area of work was occupational risk assessment, for example, an initial assessment of the risks at the new Montjuïc Fire Station.

The preventive activity plan used at several stations was also followed up.

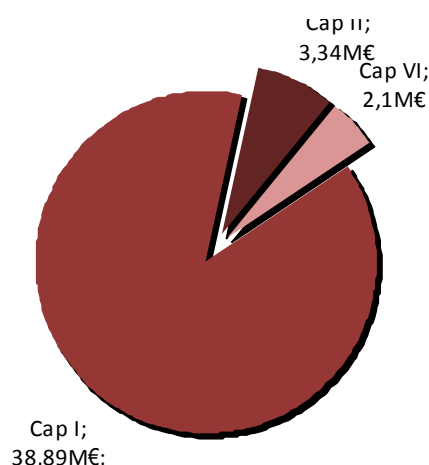
Several procedures were examined and various reports on hygiene were drawn up.

Finally, with regard to workers' health, the "Pre-B" programme was maintained, taking 12 people on board.

## Budget

The 2011 SPEIS budget came under the 13501 SPEIS General Services budget programme. This programme had a final budget of more than €44.32 million.

The programme was structured as follows (in millions of euros):



Compared to the total PSM management budget (some €239.66 million in 2011) the 2011 SPEIS budget represents 18.50% (an imperceptible 0.2% less than the sum managed in 2010).

## Investment in 2011:

Equipment: €1,560,712.86

Self-contained breathing equipment + protective equipment

Firefighter boots

Operational equipment

Torches and helmets

Customised protective equipment (new personnel)

Tanks for self-contained breathing equipment

IT applications €111,000.00

COOPER

ACER

DATA WAREHOUSE

MYCELIUM

ICAD and COOPER system connections

Replacement of machinery

Building and other work: € 222,380.00

Work on various SPEIS buildings

Adapting facilities and stations

Purchasing furniture for Montjuïc Station

SPEIS warehouse arrangements





## **Activity reports for 2011**

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**City Police**

**Mobility**

**SPEIS**



**Prevention**

**Crosscutting services**